

THE STRUCTURE OF EROTIC PREFERENCE IN THE NONDEVIANT MALE

K. FREUND*

Psychiatric Research Institute, Prague-Bohnice, Czechoslovakia
and

R. COSTELL†

Stanford University School of Medicine, Palo Alto, California

(Received 17 April 1969)

Summary—Penis volume changes in response to pictures of nude females and males of various ages provided a basis for determining the order of erotic appeal or aversion in a group of 48 non-deviant, young adult males. Continuous measurement of volume changes permitted an assessment of an "acceleration" response and its latency. The acceleration score and a combined acceleration-volume score seems to be superior to the previously utilized volume difference score alone. The latency of response proved of no value in discriminating between the picture types.

Significantly greater erotic aversion was demonstrated to the adult than to the adolescent male. Concerning the male child, no significant difference in rank could be detected.

INTRODUCTION

A PREVIOUS study, concerning the structure of erotic preference in pedophilia (Freund, 1967b), attempted to ascertain the possible role of sexually neutral as opposed to sex specific signs, in the determination of the erotic appeal of various age groups. The measurement of penis volume changes in response to coloured slides of nude females and males of various ages (Freund, 1957, 1963, 1965a, 1965b, 1967a, 1967b) permitted a ranking of erotic age preference within both the preferred and non-preferred sex. It was expected that if sex specific signs operated alone in the determination of age preference, the ranking of age groups in the non-preferred sex would have been random. It appeared, however, that with homosexual pedophiliacs the child of the non-preferred sex was relatively preferred in contrast to the androphiliacs with whom the female child occupied the last place. A similar trend was only suggested when comparing heterosexual pedophiliacs with normals. The implication of these data was to argue against the validity of any hypothesis seeking to explain pedophilia solely on the basis of a preference for, or aversion to, particular sex specific signs.

With the group of nondeviant subjects it was not possible to distinguish between the clustered ranks of age groups within the non-preferred sex. As the methods of measurement and data processing were rather unrefined (and for other reasons) the inference supporting the role of sexually neutral signs could not be generalized.

* The senior author is now a member of the staff of the Department of Psychiatry, University of Toronto, and the Clarke Institute of Psychiatry, 250 College Street, Toronto, Canada.

† The authors wish to acknowledge with gratitude the technical assistance of K. Knob, the statistical collaboration of Ing. R. Roth, and the generosity of the Inter-University Committee (Bloomington, Ind.) in providing travel funds to the junior author for his study and research in Czechoslovakia.

Thus both theoretical and methodical considerations prompted investigation of the structure of erotic preference in a larger, more homogeneous, group of nondeviant males. The current study, which utilizes a further refinement of the phalloplethysmographic method, is intended as the first of a series to elaborate the original data.

SUBJECTS

The group of *Ss* consisted of 48 young men in compulsory military service, who were of similar age (mean 20.3 years) and physical size, and who lived under similar conditions.

Data on a 49th *S* was discarded when test results indicated ephebophilia and deception (Freund, 1967a).

METHOD

The present study utilized modification "D" of the phalloplethysmographic method (Freund, 1967c).

In essence, the device provides a method for displaying and recording moment to moment changes in the volume of the male genital as detected by an air plethysmograph enclosing the organ (Freund *et al.* 1965).

At the beginning of the session the plethysmograph was applied and the *S* seated in a comfortable chair facing the projection screen. Throughout the session the *S* was observed through a one-way glass to assure that he was observing the pictures. The colour transparencies of nude individuals were presented in pairs. The first slide was exposed for 10 sec, followed without pause by the exposure of the second, also for 10 sec. Following the presentation of each pair, the *S* was asked to state the sex, and to estimate the age, of each person shown. A short adaptation series of six pairs of similarly nude males and females representative of the three age groups, preceded the test proper.

In practice, projection of a pair was commenced only after the volume had returned approximately to its initial value—determined at the end of the adaptation series—and had undulated about this "zero" point. The precise moment chosen for the presentation of the next pair was dictated by the volume having risen to the zero point from a somewhat lower value.

If, following the presentation of a pair, the volume did not return to the initial value, the *S* was asked to identify colour slides of well known historical buildings of Prague. If this diversion did not suffice, a quiet buzzer was sounded. When, despite these manoeuvres, the volume still did not settle, the zero point was reset.

The stimuli consisted of colour slides of nude males and females, representing three age groups (children 4–10 yrs, adolescents 12–16 yrs, adults 17–36 yrs) as determined from age estimates by pediatricians and anthropologists. The forty-two test slides were presented in twenty-one pairs, each containing one of the fifteen different combinations of the six sex and age groups. Each group was represented by seven different photographic subjects. To each *S* the entire series of slides was exposed twice, with a pause in between. In the second presentation the order of pictures within each pair was reversed. These presentations were denoted series I and II; with every other *S* their order was reversed such that half the *Ss* were presented the sequence I–II, and half the sequence II–I. In the hope of achieving further randomization of stimuli, the pairs of photographs were arranged into sets, A and B, differing only in the succession of the pairs. Thus, four variations in the presentations of the photographs resulted: A I–II, A II–I, B I–II, and B II–I. Each of these four variations was represented by twelve *Ss*.

The response of each *S* to a picture was characterized in three ways. The *latency* of the response was expressed as the elapsed time from the presentation of the picture to

the appearance of the first uninterrupted array of positive or negative volume changes exceeding a certain value. The *acceleration score* of the response was expressed as the algebraic sum of the acceleration values occurring during the presentation of that picture. In addition, a *volume difference score*, identical to that utilized in previous studies of this series, was expressed as the difference in volume between the beginning and end of the exposure of the particular picture.

RESULTS

In order to ascertain whether the acceleration score provided any advantage over the volume score for discriminating the six different picture types (or whether a combination of the two might prove most appropriate) the three methods of scoring were compared in several ways.

The first comparison concerned the appropriateness of sign of each score to the expected erotic appeal of each type of picture. On the basis of a priori expectations and previous research it was anticipated that for normal adult male Ss, pictures of adolescent and adult females would have a positive erotic appeal, and those of males a negative appeal. The erotic appeal of female children was left undecided. This comparison revealed the acceleration score to be superior with regard to the appropriateness of sign.

This superiority may, however, be due or partly due to a greater general tendency of the acceleration score in the direction towards negative values.

In order to ascertain whether the reactions of the Ss to the various picture types were positive, negative or neutral in terms of the acceleration score, for each S the means of

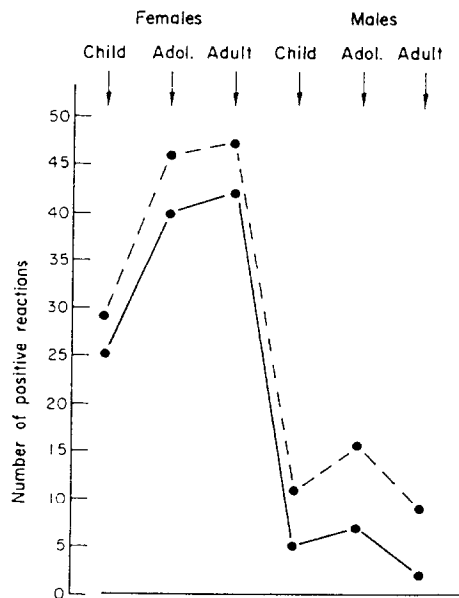


Fig. 1. Distribution of positive reactions to picture types.

Legend

- vertically: number of positive reactions
- picture type appearing as the first member of the pair
- - - - picture type appearing as the second member of the pair

the reactions to the respective picture types were computed over both series I and II, and the plus or minus signs of these means counted. This was done separately for the first and second pictures. The result is to be seen in Fig. 1.

Figure 1 demonstrates that the reaction to pictures of adolescent and adult females was positive, that to males negative, and that to female children intermediate. These results are in keeping with the respective expectations. The figure also demonstrates a greater tendency for a positive acceleration score in response to the second picture of a pair ($\chi^2 p < 0.01$), and this holds even for each of the two positive picture types separately ($\chi^2 p < 0.05$).

The second comparison of the three scoring methods was conducted by an analysis of variance, computed separately for each of the three measures. The three factors involved were the succession of pairs (set A or B), the sequence of presentation of the series (I-II or II-I), and the six categories of picture types.

Regarding the first two factors, the succession of pairs and the sequence of the two series, no difference attained the 5 per cent level of significance. However, regarding the

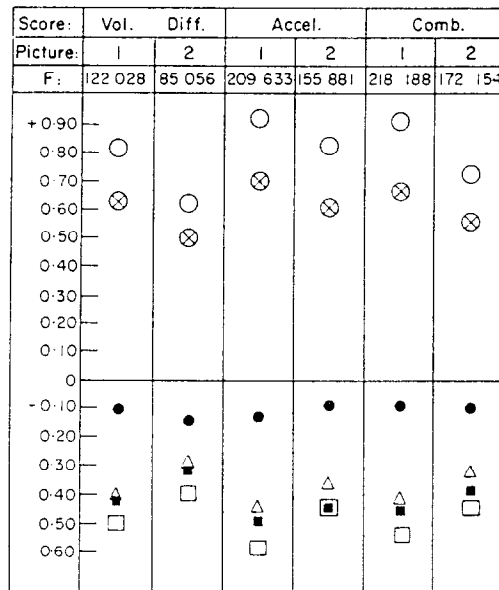


FIG. 2. Differences between picture types with respect to erotic value.

Legend

vertically: means of reactions to picture types in terms of standard scores

Female {
 ○ adults
 ⊗ adolescents
 ● children
 Male {
 □ adults
 △ adolescents
 ■ children

VD.: volume difference score of reactions

ACC.: acceleration score

COMB.: combined measure

1, 2: first and second picture of each pair exposed

Third horizontal line: value of F concerning the factor picture types in each of the six analyses of variance.

	V. D.		Acc.		Comb.	
	1	2	1	2	1	2
○ > ⊗						
○ > ●						
○ > △						
○ > ■						
○ > □						
⊗ > ●						
⊗ > △						
⊗ > ■						
⊗ > □						
● > △						
● > ■						
● > □						
△ > ■						
△ > □						
■ > □						

FIG. 3. Differentiation between picture types by three measures of reaction.
Legend

- Female { ○ adults
 ⊗ adolescents
 ● children
Male { □ adults
 △ adolescents
 ■ children
- > : picture type having gained larger reaction left, picture type having gained smaller reaction right
 VD: volume difference score
 ACC: acceleration score
 COMB: both measures combined
 1, 2: first, second picture of each pair exposed
 Black cell: significance of difference as ascertained by the Duncan test between the respective picture types compared reaches or exceeds the 1 per cent level of significance
 Black triangle: the same holds for the 5 per cent level of significance
 White cell: difference does not reach the level of 5 per cent significance

six categories of pictures, the F test exceeded the 1 per cent level of significance in all six instances. Accordingly, the F values regarding picture types were compared for each of the three measures. This comparison, as above, was conducted with pictures appearing as the first or second members of the pair separately. The comparison made use of the Bradley-Schumann test (1957).

In this case there was no evidence to support the earlier impression of the superiority of the acceleration over the volume score; for the differences between the three F values did not attain the 5 per cent level of significance. In accord with expectations, however, the discrimination between picture types proved to be superior when utilizing the acceleration or combined measures rather than the volume score.

Figure 2, in addition to the F values discussed above, presents the erotic values of the six picture types, in terms of standard scores, as determined by the three measures. Figure 3 demonstrates the results of the Duncan test (1955, 1957) regarding the differences in erotic value of the various picture types.

Considering the first picture of each pair, the erotic appeal of adolescent and adult males could be discriminated when utilizing the acceleration score or the combined measure. In this instance erotic aversion to the adolescent proved to be less pronounced than that to the adult. Concerning the male child, no difference attaining the 5 per cent level of significance could be detected.

With regard to the latency of the volume response, analyses of variance—carried out separately for positive and negative reactions—failed to detect any significant differences between picture types.

REFERENCES

- BRADLEY R. A. and SCHUMANN B. E. W. (1957) The comparison of the sensitivities of similar experiments. *Biometrics* **13**, 496–510.
- DUNCAN D. B. (1955) Multiple range and multiple F-tests. *Biometrics* **11**, 1.
- DUNCAN D. B. (1957) Multiple range tests for correlated and hetero-sedastic means. *Biometrics* **13**, 164.
- FREUND K. (1957) Diagnostika homosexuality u muže. *Csika. Psychiat.* **53**, 382–393.
- FREUND K. (1963) A laboratory method for diagnosing predominance of homo- or hetero-erotic interest in the male. *Behav. Res. & Therapy* **1**, 85–93.
- FREUND K. (1965a) Jednoduchý přístroj k měření volumových změn mužského genitálu. *Csika. Psychiat.* **61**, 164–168.
- FREUND K. (1965b) Diagnosing heterosexual pedophilia by means of a test of sexual interest. *Behav. Res. & Therapy* **3**, 229–234.
- FREUND K. (1967a) Diagnosing homo- or heterosexuality and erotic age preference by means of a psychophysiological test. *Behav. Res. & Therapy* **5**, 209–228.
- FREUND K. (1967b) Erotic preference in pedophilia. *Behav. Res. & Therapy* **5**, 339–348.
- FREUND K. (1967c) Další modifikace falopletismografického záznamu a jeho vyhodnocení. *Csika. Psychiat.* **63**, 259–261.
- FREUND K., SEDLACEK F. and KNOB K. (1965) A simple transducer for mechanical plethysmography of the male genital. *J. exp. anal. Behav.* **8**, 169–179.